

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-8 (canceled)

Claim 9 (currently amended): A heat exchanger comprising:

a pair of header tanks arranged as spaced apart from each other[[,]]; and

a plurality of heat exchange tubes arranged in parallel between the pair of header tanks and each having opposite ends joined to the respective header tanks, each of the heat exchanger header tanks comprising a header forming plate, a tube connecting plate and an intermediate plate interposed between the two plates, the header forming plate, the tube connecting plate and the intermediate plate being arranged in superposed layers and brazed to one another, the header forming plate being provided with an outward bulging portion extending longitudinally thereof and having an opening thereof closed with the intermediate plate, the tube connecting plate being provided at a portion thereof corresponding to the outward bulging portion with a plurality of tube insertion holes arranged longitudinally of the tube connecting plate at a spacing and extending through the thickness thereof, the intermediate plate having communication holes extending through the thickness thereof for causing the respective tube insertion holes of the tube connecting plate to communicate with interior of the outward bulging portion of the header forming plate therethrough, the heat exchange tubes having their opposite ends inserted into the respective tube insertion holes of the pair of header tanks and brazed to the respective header tanks,

wherein the header forming plate of the first of the pair of header tanks has a plurality of outward bulging portions aligned longitudinally thereof and spaced apart from each other, and the header forming plate of the second of the pair of header tanks has outward bulging portions one smaller in number to the number of outward bulging portions of the first header tank so as to be opposed to adjacent two outward bulging portions of the first header tank, all

the communication holes of the intermediate plate of the first header tank in communication with each of the outward bulging portions of the first header tank are held in communication by communication portions formed in the intermediate plate, all the communication holes of the intermediate plate of the second header tank in communication with each of the outward bulging portions of the second header tank are held in communication by communication portions formed in the intermediate plate, the first header tank has a refrigerant inlet communicating with the outward bulging portion at one end thereof and a refrigerant outlet communicating with the outward bulging portion at the other end thereof, the header forming plate of each of the header tanks has a wall thickness T, the outward bulging portion of each header tank has a bulging height of H, and H/T is in the range of 0.5 to 1.5.

Claim 10 (original): A heat exchanger according to claim 9 wherein the header forming plate, the tube connecting plate and the intermediate plate are each made from a metal plate by press work.

Claim 11 (original): A heat exchanger according to claim 9 wherein the tube connecting plate is integrally provided at each of opposite side edges thereof with a cover wall covering a boundary between the header forming plate and the intermediate plate over the entire length thereof, and the cover wall is brazed to corresponding side faces of the header forming plate and the intermediate plate.

Claim 12 (currently amended): A heat exchanger according to claim 11 wherein the cover ~~plate~~ wall is integrally provided at an outer end thereof with an engaging portion engaged with an outer surface of the header forming plate and brazed to the header forming plate.

Claim 13 (canceled)

Claim 14 (currently amended): A heat exchanger according to claim [[13]] 9 wherein the first header tank is two in the number of outward bulging portions therein, and the second header tank is one in the number of outward bulging portion therein.

Claims 15-16 (canceled)

Claim 17 (currently amended): A heat exchanger ~~according to claim 16~~ comprising:
a pair of header tanks arranged as spaced apart from each other; and
a plurality of heat exchange tubes arranged in parallel between the pair of header tanks and each having opposite ends joined to the respective header tanks, each of the heat exchanger header tanks comprising a header forming plate, a tube connecting plate and an intermediate plate interposed between the two plates, the header forming plate, the tube connecting plate and the intermediate plate being arranged in superposed layers and brazed to one another, the header forming plate being provided with an outward bulging portion extending longitudinally thereof and having an opening thereof closed with the intermediate plate, the tube connecting plate being provided at a portion thereof corresponding to the outward bulging portion with a plurality of tube insertion holes arranged longitudinally of the tube connecting plate at a spacing and extending through the thickness thereof, the intermediate plate having communication holes extending through the thickness thereof for causing the respective tube insertion holes of the tube connecting plate to communicate with interior of the outward bulging portion of the header forming plate therethrough, the heat exchange tubes having their opposite ends inserted into the respective tube insertion holes of the pair of header tanks and brazed to the respective header tanks,

wherein the header forming plate of the first of the pair of header tanks has four outward bulging portions arranged widthwise thereof at a spacing and longitudinally thereof at a spacing, the header forming plate of the second of the pair of header tanks has two outward bulging portions arranged side by side as spaced apart widthwise thereof and

opposed to the respective longitudinally adjacent pairs of outward bulging portions of the first header tank, the tube connecting plate of each of the header tanks is provided with a plurality of tube insertion holes at each of widthwise opposite side portions thereof, the intermediate plate of each header tank is provided with a plurality of communication holes at each of widthwise opposite side portions thereof, the communication holes of the intermediate plate of the first header tank in communication with one of the pair of outward bulging portions arranged widthwise of the first header tank and the communication holes of the intermediate plate in communication with the other outward bulging portion of said pair are held in communication by first communication holes formed in the intermediate plate to thereby cause said pair of outward bulging portions to communicate with each other, all the communication holes of the intermediate plate communicating with the other pair of outward bulging portions are held in communication by second communication portions formed in the intermediate plate, all the communication holes of the intermediate plate of the second header tank in communication with each of the outward bulging portions of the second header tank are held in communication by communication portions formed in the intermediate plate, the first header tank is provided with a refrigerant inlet communicating with one of said other pair of outward bulging portions and a refrigerant outlet communicating with the other outward bulging portion of said other pair, assuming that the header forming plate of each of the header tanks has a wall thickness T , and that the outward bulging portions of each header tank have a bulging height of H , and H/T is in the range of 1.0 to 2.0.

Claims 18-23 (canceled)

Claim 24 (currently amended): A supercritical refrigeration cycle which comprises a compressor, a gas cooler, an evaporator, a pressure reducing device and an intermediate heat exchanger for subjecting refrigerant flowing out from the gas cooler and refrigerant flowing

out from the evaporator to heat exchange, and wherein a supercritical refrigerant is used, the gas cooler comprising a heat exchanger according to claim [[15]] 9.

Claim 25 (previously presented): A supercritical refrigeration cycle which comprises a compressor, a gas cooler, an evaporator, a pressure reducing device and an intermediate heat exchanger for subjecting refrigerant flowing out from the gas cooler and refrigerant flowing out from the evaporator to heat exchange, and wherein a supercritical refrigerant is used, the evaporator comprising a heat exchanger according to claim 17.

Claim 26 (new): A vehicle having installed therein a supercritical refrigeration cycle according to claim 24 as a vehicle air conditioner.

Claim 27 (new): A vehicle having installed therein a supercritical refrigeration cycle according to claim 25 as a vehicle air conditioner.